

COPY OF PAPERS ORIGINALLY FILED RESPONSE UNDER 37 CFR 1.116 **EXPEDITED PROCEDURE EXAMINING GROUP 2811**

> PATENT APPLICATION Do. No. 5484-48

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Byung-Sup SHIM, et al.

Serial No.

Filed:

For:

EI

On of: Byung-Sup SHIM, et al.

09/305,240

Examiner: Nadav. Ori

May 4, 1999

Group Art Unit: 2811

OPEN DRAIN INPUT/OUTPUT STRUCTURE AND MANUFACTURING

METHOD THEREOF IN SEMICONDUCTOR DEVICE

BOX AF

Assistant Commissioner for Patents

Washington, D.C. 20231

AMENDMENT AFTER FINAL REJECTION UNDER 37 CFR 1.116

Responsive to the Final Office Action, dated of February 13, 2002 and Advisory Action, dated April 19, 2002, please amend the application as follows.

IN THE CLAIMS

5. A pull-up transistor disposed between a Vdd terminal (Twice Amended) and an I/O pad of a semiconductor device comprising;

a semiconductor substrate of a first conductive-type;

a source region and a drain region of a second conductive type formed in the substrate and defining between them a channel region, on of the source region and the drain region being electrically coupled to the I/O pad, the other one of the source region and the drain region being electrically coupled to the Vdd terminal;

an impurity implantation region of impurities of a second conductive-type formed in a first sector of the channel region, the first sector not reaching either one of the source region and the drain region;

the impurity implantation region of the first sector comprising a surface region operable under field effect as a depletion channel;

Docket No. 5484-48

Page 1 of 6

Application No. 09/305,240